Abstract

~~A new method, which builds the models at m-th step directly from models at the initial step, is provided to minimize the storage and calculation. The method therefore merges the MxN transforms into a single transformation. The merge guarantees the exactness of the transformations and make it possible for recognizers on mobilr devices to have adaptation capability.~~

A new iterative hierarchical linear regression method for generating a set of linear transforms to adapt HMM speech models to a new environment for improved speech recognition is disclosed. The method determines a new set of linear transforms at an iterative step by Estimate-Maximize (EM) estimation, and then combines the new set of linear transforms with the prior set of linear transforms to form a new merged set of linear transforms. An iterative step may include realignment of adaptation speech data to the adapted HMM models to further improve speech recognition performance.

REPLACEMENT ABSTRACT
OK TO ENTER
DLS 7/5/05